Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services

STATEMENT OF BASIS

Saint-Gobain Containers, Inc.
Ruston Plant
Simsboro, Lincoln Parish, Louisiana
Agency Interest Number: 3227
Activity Number: PER19960001
Proposed Permit Number: 1720-00002-V0

I. APPLICANT

Company:
Saint-Gobain Containers, Inc. - Ruston Plant
PO Box 563
Ruston, Louisiana 71273-0563

Facility:
Saint-Gobain Containers, Inc.
4241 Hwy 563
Simsboro, Lincoln Parish, Louisiana
Approximate UTM coordinates are 522.300 kilometers East and 3600.500 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

Saint-Gobain Containers, Inc., Ruston Plant, an existing glass container manufacturing facility, began operation in early 1968 under the ownership of Easterby Plant of Laurens Glass. The plant has gone through several name and ownership changes including Laurens-Pierce and Incon Packaging. In 1987, the Incon Glass Packaging Corporation and the Ball Glass Packaging Corporation merged to form Ball-Incon Glass Packaging Corporation, which became a wholly owned subsidiary of Ball Corporation in 1991. The facility underwent additional company name changes between 1994 and 2001, when it finally became Saint-Gobain Containers, Inc. The Ruston Plant currently operates under Permit No. 1720-00002-01, issued August 12, 1992; Compliance Order AE-CN-05-0098, issued August 8, 2005; and Amended Compliance Order AE-CN-05-0098B, issued October 19, 2007.

The Ruston Plant is located at the intersection of US Interstate 20 and Louisiana Highway 563, approximately eight miles west of Ruston, Louisiana in Lincoln Parish. The facility encompasses approximately 900,000 square feet on 80 acres. The facility is bordered on the north by US Interstate 120, on the south by timbered property, on the west by Highway 563 and on the east by timbered property.

Saint-Gobain Containers, Inc – Ruston Plant manufactures container glass products for commercial packing and bottling. The commercially produced glass is a soda-lime glass made from of sand, limestone, soda ash, and cullet (broken glass). There are four stages in the manufacture of soda-lime glass: (1) raw material handling, (2) furnace charging and melting, (3) forming, and (4) finishing.

Raw Material Handling

Sand, limestone, and soda ash are received by truck or rail and stored separately in silos. The raw materials are transferred through a gravity feed system to a scale and mixer, where the material is mixed with. Small amounts of colorants and refining agents (salt cake) are also used in the glass-making process. The raw material mixture is then dropped into a feeder leading to the melting furnace.

Furnace Charging and Melting

The Ruston Plant operates two continuous regenerative furnaces, Furnace No. 1 (1-92) and Furnace No. 2 (2-92), which are capable of producing a total of 776 tons of glass per day. The furnaces are heated primarily thorough natural gas combustion. However, heat for Furnace No. 2 is augmented with electric heating elements, commonly referred to as "electric boost".

The raw material mixture is introduced to the furnace at a temperature of approximately 2,700 °F. The molten glass leaves the furnaces and goes through the distributor and forehearths where the molten glass achieves a uniform temperature level prior to the next glass manufacturing step.

Forming and Finishing

The molten glass exits the forehearth and goes to molds where initial forming is done by pressing and/or blowing. The end product undergoes finishing, coating, and annealing. The product is inspected, packaged, and prepared for delivery to customers. End product which does not meet inspection is recycled back into the glass manufacturing as cullet.

Air Emissions

The main air emissions generated are sulfur dioxide (SO_2), nitrogen oxides (NO_x), and particulate matter (PM).

SO_2 is produced from sulfur which is present in the salt cake, a refining element used in the glass-melting furnaces. NO_x emissions at the glass-melting furnaces result from the reaction of nitrogen and oxygen at high temperatures in the furnace, the combination of elemental nitrogen and oxygen in air with the combustion device, and the decomposition of nitrogen compounds in the raw material batch. PM emissions result from the vaporization and recrystallization of materials, in the molten glass, which combines with gases to form condensates.

SO_2, NO_x, PM, carbon monoxide (CO), and volatile organic carbons (VOC) also result from the combustion of natural gas for operating the glass-melting furnaces, distributors, annealing lehrs, and forehearths. VOC contributions are primarily from video jet ink date coders (VJ-11a, VJ-12, VJ-13, VJ-21a, VJ-22, VJ-23a, VJ-24, VJ11b, VJ-21b and VJ-23b), the oil used in the forming process (MS-01) and the Hot End Treatment Hoods (HE-11, HE-12, HE-13, HE-21, HE-22, HE-23 and HE-24). PM emissions are also a result of carry over of fine material in the raw material handling.

III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire were submitted by Saint-Gobain Containers, Inc – Ruston Plant on October 11, 1996, requesting a Part 70 operating permit. Additional information dated December 19, 2002 and October 15, 2004 were received for this application. A revised application dated October 31, 2005 was received, with additional information dated February 6, 2006 and March 21, 2006 also being received for this application. A revised application dated March 8, 2008 was received with additional information dated May 23, 2008 also being received for this application. A revised application dated June 20, 2008 was also received which replaces all previously submitted applications and additional information packages in their entirety.

Project

This initial Part 70 Operating Permit, Saint-Gobain Containers, Inc – Ruston Plant allows for:

1. Rebricking and associated miscellaneous changes to Furnace No. 1;
2. Installation of Oxygen Enriched Air Staging (OEAS) on Furnace No. 1 to reduce emissions of NOx, concurrent with the furnace rebricking;
3. Rebricking and associated miscellaneous changes to Furnace 2;
4. Installation of Oxygen Enriched Air Staging (OEAS) on Furnace No. 2 to reduce emissions of NOx, concurrent with the furnace rebricking;
5. Installation of continuous emissions monitors (CEMS) for NO_x and SO_2 on Furnaces Nos. 1 and 2;
6. Installation of a continuous opacity monitoring system (COMS) on Furnace No. 1;
7. Incorporation of the raw material handling dust collection system previously approved in April 2007 via an Authorization to Construct;
8. Updating of the emissions source list and Insignificant Activity list to reflect current operations; and,
9. Updating of emission limits and equipment consistent with those incorporated in the Amended Compliance Order.

Proposed Permit

Permit 1720-00002-V0 will be the initial Part 70 operating permit for the Saint-Gobain Containers, Inc. – Ruston Plant.

Permitted Air Emissions

The rebricking, installation of OEAS and installation of CEMS for Furnaces Nos. 1 and 2 will occur at different times. Thus, emission changes associated with these projects will be phased in at different times.

Emission rates denoted as "All Phases" are not impacted by facility changes and become effective at the time of issuance of this permit and remain in effect until a new permit is issued to the facility replacing Permit No. 1720-00002-V0.

Unless denoted as "Phase 1," "Phase 2," or "Phase 3," specific requirements become effective at the time of the issuance of this permit and remain in effect until a new permit is issued to the facility replacing Permit No. 1720-00002-V0.

Emission rates and specific requirements denoted as "Phase I" become effective at the time of the issuance of this permit. "Phase I" emission rates and specific requirements will remain in effect until "Phase II" emission rates and specific requirements become effective.

The site-wide emission rates effective during Phase I are shown in the table below in tons per year:

Pollutant	Phase I (tpy)
PM_{10}	139.76
SO_2	339.13
NO_X	1088.59
CO	47.06
VOC	50.68

LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Phase I (tpy)
Hydrochloric Acid	4.85
Methanol	2.34
Methyl Ethyl Ketone	3.11
Total	10.30

"Phase II" emissions and specific requirements are associated with modifications to Furnace No. 2 (i.e., rebricking, installation of the OEAS, etc.). "Phase II" emission rates and specific requirements become effective 45 days after the compliance test has been performed to ensure the OEAS system installed in Furnace 2 is functioning properly. "Phase II" emission rates and specific requirements will remain in effect until "Phase III" emission rates become effective.

The site-wide emission rates effective at the implementation of Phase II are shown below in tons per year:

Pollutant	Phase II (tpy)
PM_{10}	139.76
SO_2	339.13
NO_X	793.38
CO	47.06
VOC	50.68

LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Phase II (tpy)
Hydrochloric Acid	4.85
Methanol	2.34
Methyl Ethyl Ketone	3.11
Total	10.30

"Phase III" emissions and specific requirements are associated with modifications to Furnace No. 1 (i.e., rebricking, installation of the OEAS, installation of the distributor, etc.). "Phase III" emission rates and specific requirements become effective 45 days after the compliance test has been performed to ensure that the OEAS system installed on Furnace 1 is functioning properly. "Phase III" emission rates and specific requirements remain in effect until a new permit is issued to the facility replacing Permit No. 1720-00002-V0.

The site-wide emission rates effective at the implementation of Phase III are shown below in tons per year:

Pollutant	Phase III (tpy)
PM_{10}	139.77
SO_2	339.14
NO_X	720.77

Pollutant	Phase III (tpy)
CO	47.18
VOC	50.69

LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Phase III (tpy)
Hydrochloric Acid	4.85
Methanol	2.34
Methyl Ethyl Ketone	3.11
Total	10.30

Emission change summary in tons per year:

Pollutant	Before	Phase I	Phase II	Phase III	Overall Change
PM_{10}	87.10	139.76	139.76	139.77	+52.67
SO_2	361.30	339.13	339.13	339.14	-22.16
NO_X	883.90	1088.59	793.38	720.77	-163.13
CO	20.00	47.06	47.06	47.18	+27.18
VOC	14.70	50.68	50.68	50.69	+35.99

Pollutant	Before	Phase I	Phase II	Phase III	Overall Change
Hydrochloric Acid	-	4.85	4.85	4.85	+4.85
Methanol	-	2.34	2.34	2.34	+2.34
Methyl Ethyl Ketone	-	3.11	3.11	3.11	+3.11
Total					+10.30

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.